

EXHIBIT FFF

SNOCROSS IRON

Checking Out 2005's Racing Equipment



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POLARIS 440 IQ

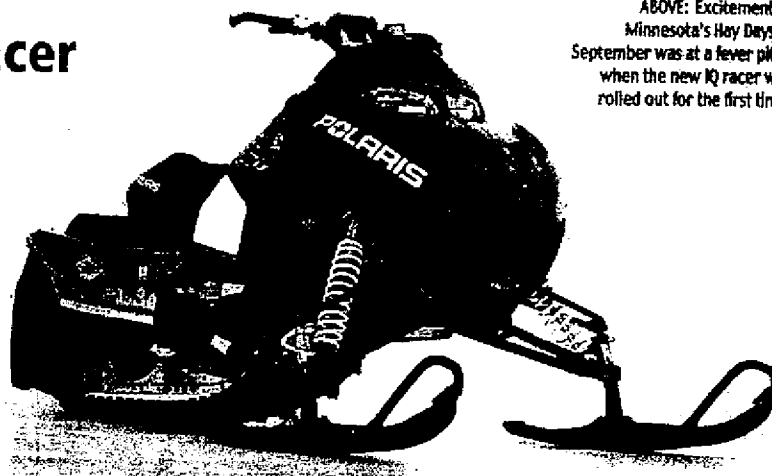
Smarty-Pants Racer

IQ stands for Intelligence Quotient - a measure of how smart a person is. It includes, among other things, memory capacity, creativity and quick mental calculation. Although it's a bit presumptuous for Polaris to claim their new line of snowmobiles is smarter than anyone else's, there's been some pretty intelligent design worked into the new Polaris 440 race sled.

You don't need a magnifying glass to see this sled is completely different in concept and execution than last year's Pro-XR 440. Looking around, it's difficult to find any similarity to the new Fusion, either. Certainly the rider-forward look of the big 900 is there but all the bodywork is completely unique and separate from anything you'd see in a Polaris showroom.

Jack open the hood and there's no laid back miniature of the 900 twin resting in the belly. On first inspection the engine looks strangely familiar - upright, with the exhaust valves and pipe hanging on the front and the carbs at the rear - maybe a warmed over version of last year's Pro-X mill?

The engineers would disagree. The new powerplant has completely redesigned cases, downsized to fit into the IQ's engine bay but with more crankcase capacity, larger V-Force reeds and port modifications to improve flow. A tighter squish cylinder head raises the compression ratio and a ceramic coated pipe and a new high flow air box assist breathing. The result is

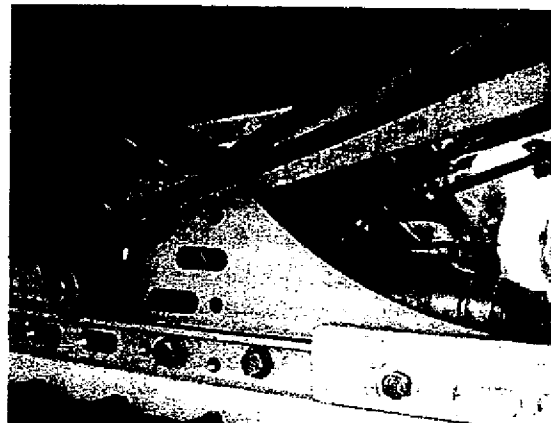


The new 440's arresting and somewhat strange looks get a lot of attention. Obviously the sled is purpose built for racing and not for trail riding. There could be some future trickle-down to production sleds, though.

a claimed 6 percent boost in midrange and peak horsepower while running exclusively on 110 octane.

Not a beauty pageant finalist, the sled looks like some kind of mutant, snow bound insect. The belly pan

Big doublers are used to strengthen the slide rails and the now-universally accepted pass-through front arm works in tandem with Walker Evans clicker shocks. Calibration changes reflect the ride-forward tech of the new chassis.



ABOVE: Excitement at Minnesota's Hay Days in September was at a fever pitch when the new IQ racer was rolled out for the first time.



ABOVE: FAR LEFT: Redesigned spindles are strong, smooth and show the showroom Fusion's geometry.

RIGHT: Over-the-engine steering supports add a tremendous amount of bulkhead strength. Although the engine is not a completely new laydown design, Polaris engineers have done a ton of work reworking the cases and upping the power output.

sits a full 13-inches off the ground and the nose is so scrubby it looks like something Michael Jackson would dig (no pun intended). The front A-arms and Walker Evans remote reservoir shocks stick grotesquely out the sides but cash in 11-inches of vertical travel. The spindles are completely unique to the 440 and are designed to provide variable castor and zero scrub as the suspension cycles from full extension (as in a jump) to full compression (when landing). Any extra stability here is appreciated in the snowcross world where riders spend up to half their laps suspended in the air.

Actually, some of the production Fusion's



LEFT: A flat mounted tach reflects the IQ's stand-up riding style. Handlebar pole is adjustable but not in the same vein as Rider Select.



technology is adapted here with the upper A-arm mounts being attached to the bulkhead on a non-parallel axis to the lowers. The Race Shop tells us the bulkhead is not that much different than the Fusion's but the wishbones are longer and the spin-

dles are smoother, stronger and less intrusive - good for avoiding those first turn lock-ups and tangles with another sled. The lightness of the race spindle also reduces unsprung weight while delivering less restrictive steering and a tighter turning radius.

Last year's Polaris racers often

complained of other sleds being able to turn under them in the mushy, grainy snow conditions of some tracks. The IQ's tighter cranking will help and, hopefully, cure the problem.

Bump absorption at the rear is handled by Walker Evans compression adjustable dampers with 12 clicker positions (we've seen some on racetracks with Ohlins on the front). Rate can be adjusted by working the two shock rods running parallel to the rear damper. There's 14 inches of travel back there.

A new master cylinder has been designed with the lever set at a 20-degree downward angle for better two finger "feel" when riders are making sitting to standing transitions. The race department claims the new hydraulic cylinder is more durable, has less parts and offers better sealing than former designs.

There's no doubt Polaris is making a statement about its conversion to centralized mass, rider forward design. Last year's racer was a toe-in-the-water demonstration of this commitment but the IQ440 puts Roseau up to its ears. right in the middle of the stream. Side viewing tells us the rider is jammed up past the middle of the sled and an adjustable handpole (using wrenches) allows the bars to be manipulated for maximum stand-up comfort. Even the lunge gauge - a tachometer - is mounted flat and cannot be read properly when seated, only when standing. The seat is a place rarely visited and is so tall, thin and grippy it defies any sort of comfort, unless of course, the driver is railing a corner at race speeds. The tunnel is an inch narrower than a stocker and the footrests are an inch wider than last year's Pro-X. The overall ergonomic impression is this: not for comfort, not for trail use - racing only.

This is, in fact, the philosophy at play here. The 440 IQ is a sled purpose built for racing; don't expect to see one in a showroom with saddlebags and a 2-up seat. Its styling, engineering and execution are dead serious and its market is razor thin. Polaris wants you to know it's for winners only! ▲



LEFT: Polaris uses four involute drive sprockets to deliver power to the snow. The Fusion's hollow drive axle is not in snowcross racing plans... yet. Heat exchangers are placed at the front and top of the tunnel.